



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

Source

Date Processed by STIC

101787,267

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,

2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS.

http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1 EFS-Bio (http://www.uspto.gov/ebc/efs/downloads/documents.htm, EFS Submission User Manual cPAVE)
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
- 3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04): U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04

ERROR DETECTED	SUGGESTED CORRECTION SERIAL NUMBER: 10 787,26+
ATTN: NEW RULES CASES	PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE
Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
2Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.
3Misaligned Amino Numbering	The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers, use space characters, instead.
4Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
SVariable Length	Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
6Patentin 2.0 "bug"	A "bug" in Patentin version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) Normally, Patentin would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
7Skipped Sequences (OLD RULES)	Sequence(s)missing. If intentional, please insert the following lines for each skipped sequence (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped
	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences
8Skipped Sequences (NEW RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence <210> sequence id number <400> sequence id number 000
9Use of a's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
10Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or seigntific name (Genus/species). <220> <223> section is required when <213> response is Unknown or is Artificial Sequence.
11Usc of <220>	Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 0001/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
Patentin 2.0 "bug"	Please do not use "Copy to Disk" function of Patentln version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
13 Misuse of n/Xaa	"n" can only represent a single nucleotide: "Xaa" can only represent a single amino acid

AMC - Biotechnology Systems Branch - 09/09/2003



IFWO

RAW SEQUENCE LISTING

DATE: 07/20/2004

PATENT APPLICATION: US/10/787,267

TIME: 11:34:22

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<110> APPLICANT: Dartois, Veronique A.
         Hoch, James A.
 5
         Valle, Fernando
 6
         Kumar, Manoj
  <120> TITLE OF INVENTION: 2,5-DKG Permeases
  <130> FILE REFERENCE: GC687-3-D1
14 <140 > CURRENT APPLICATION NUMBER: US 10/787,267
15 <141> CURRENT FILING DATE: 2004-02-25
17 <150> PRIOR APPLICATION NUMBER: US 09/922,501
                                                              Mandatory, 22132 has to be
Theraptificial
18 <151> PRIOR FILING DATE: 2001-08-03
20 <150> PRIOR APPLICATION NUMBER: US 60/325,774
21 <151> PRIOR FILING DATE: 2000-08-04
23 <150> PRIOR APPLICATION NUMBER: US 60/421,141
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Does Not Comply genus,
Corrected Diskette Noeded
24 <151> PRIOR FILING DATE: 2000-09-29
26 <160> NUMBER OF SEO ID NOS: 22
28 <170> SOFTWARE: FastSEQ for Windows Version 4
30 <210> SEQ ID NO: 1
31 <211> LENGTH: 1500
32 <212> TYPE: DNA
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36 <221> NAME/KEY: CDS
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41 gegteatgaa eeteaaettt agtaggeaag eet atg aae age tet aee aat gea
                                                                            114
                                          Met Asn Ser Ser Thr Asn Ala
43
45 acg aaa cgc tgg tgg tac atc atg cct atc gtg ttt atc acg tat agc
                                                                            162
46 Thr Lys Arg Trp Trp Tyr Ile Met Pro Ile Val Phe Ile Thr Tyr Ser
49 ctg gcg tat ctc gac cgc gca aac ttc agc ttt gct tcg gca gcg ggc
                                                                            210
50 Leu Ala Tyr Leu Asp Arg Ala Asn Phe Ser Phe Ala Ser Ala Ala Gly
        25
51
                             30
53 att acg gaa gat tta ggc att acc aaa ggc atc tcg tcg ctt ctt ggc
                                                                            258
54 Ile Thr Glu Asp Leu Gly Ile Thr Lys Gly Ile Ser Ser Leu Leu Gly
                         45
57 gea ett tte tte ete gge tat tte tte tte eag ate eeg ggg geg att
                                                                            306
58 Ala Leu Phe Phe Leu Gly Tyr Phe Phe Phe Gln Ile Pro Gly Ala Ile
                     60
                                          65
61 tac gcg gaa cgc cgt agc gta cgg aag ctg att ttc atc tgt ctg atc
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62 Tyr Ala Glu Arq Arq Ser Val Arq Lys Leu Ile Phe Ile Cys Leu Ile
63
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RAW SEQUENCE LISTING DATE: 07/20/2004 PATENT APPLICATION: US/10/787,267 TIME: 11:34:22

															tat		402
66 J	Leu	Trp	Gly	Ala	Cys	Ala	Ser	Leu	Asp	Arg	Asp	${\tt Gly}$	Ala	Gln	Tyr	Ser	
67			90					95					100				
69 a	agc	gct	ggc	tgg	cga	tcc	gtt	tta	ttc	tcg	gct	gtc	gtg	gaa	gcg	gcg	450
70 8	Ser	Ala	Gly	Trp	Arg	Ser	Val	Leu	Phe	Ser	Ala	Val	Val	Glu	Ala	Ala	
71		105					110	•				115				`	
73	gtc	atg	ccg	gcg	atg	ctg	att	tac	atc	agt	aac	tgg	ttt	acc	aaa	tca	498
74	Val	Met	Pro	Ala	Met	Leu	Ile	Tyr	Ile	Ser	Asn	${\tt Trp}$	Phe	Thr	Lys	Ser	
75	120					125					130					135	
77. <u>s</u>	gaa	cgt	tca	cgc	gcc	aac	acc	ttc	tta	atc	ctc	ggc	aac	ccg	gtc	acg	546
78 (Glu	Arg	Ser	Arg	Ala	Asn	Thr	Phe	Leu	Ile	Leu	Gly	Asn	Pro	Val	Thr	
79					140					145					150		
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82 7	Val	Leu	Trp	Met	Ser	Val	Val	Ser	Gly	Tyr	Leu	Ile	Gln	Ser	Phe	Gly	
83				155					160					165			
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87			170					175					180				
															aac		690
90 1		_	Trp	Trp	Val	Leu		Lys	Val	Lys	Pro		Gln	Val	Asn	Trp	
91		185					190					195					
	_	_	_		-										agc		738
		Ser	Glu	Asn	Glu	-	Ala	Ala	Leu	GIn		GIn	Leu	Glu	Ser		
95						205					210					215	
	_	_	~ ~					_				_	_		cgc		786
	GIn	GIn	GLY	He	_	Ala	Val	Arg	Asn		GIY	Glu	Ala	Phe	Arg	ser	
99					220					225					230		
																ggc	834
	Arg	ASI	ı va.			тег	ı Cys	з мет		_	Pne	e Ale	a Tr			Gly	1
103	~+~			235					240					24!			882
																ggc	002
107	val	ıyı	. Giy		va.	. net	T TTF	255		, sei	. 116	3 110	260	-	r Gry	g Gly	
	ata	22t			r ato	ato	1 (72)			tac	r ata	r + c1			a cct	tat	930
																Tyr	250
111	vai	265		. 01)	rice	. va.	270		. Oly	1-1	, net	27!		. va.		, - y -	
	cta			r act	att	acc			ato	ato	tee			- tc	r dat	aaa	978
																Lys	370
	280					285		,			290					295	
			ı aac	r cat	aaa			ato	t.aa	r ddd			a ata	a ati	t. aar	gga	1026
	_	_	-	_		_	-	-		_	_		_	_		/ Gly	
119		0			300					305					310		
	cta	act	: ttt	att			ı tac	acc	ato			aa	c cat	: tt		g gec	1074
																Ala	
123				315	_		^		320	_				32	_		
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																Tyr	
127		-	330					335					340			-	
129	gqt	CCC	, ttt	tto	geo	ato	att	ccc	g gaa	ato	gicto	g cc	g cgt	aa	c gto	gcc	1170
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RAW SEQUENCE LISTINGPATENT APPLICATION: **US/10/787,267**DATE: 07/20/2004

TIME: 11:34:22

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                                          370
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138 Phe Gly Ser Trp Phe Val Gly Tyr Leu Asn Gly Thr Thr Gly Ser Pro
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141 tea gee tea tac att tte atg gga gtg geg ett tte gee teg gta tgg
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142 Ser Ala Ser Tyr Ile Phe Met Gly Val Ala Leu Phe Ala Ser Val Trp
145 ctt act tta att gtt aag cct gct aac aat caa aag ctc ccc atc ggc
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146 Leu Thr Leu Ile Val Lys Pro Ala Asn Asn Gln Lys Leu Pro Ile Gly
                               415
149 gct cgt cac gcc tgacctttac tacttacgga gatcacgcct tgggtacgtt
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150 Ala Arg His Ala
151
        425
153 gcaggacaaa ccgataggca ccgcaaaggc tggggccatc gagcagcgcg taaacagtca
                                                                      1474
168 Gly Ile Ser Ser Leu Leu Gly Ala Leu Phe Phe Leu Gly Tyr Phe Phe
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170 Phe Gln Ile Pro Gly Ala Ile Tyr Ala Glu Arg Arg Ser Val Arg Lys
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172 Leu Ile Phe Ile Cys Leu Ile Leu Trp Gly Ala Cys Ala Ser Leu Asp
174 Arg Asp Gly Ala Gln Tyr Ser Ser Ala Gly Trp Arg Ser Val Leu Phe
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176 Ser Ala Val Val Glu Ala Ala Val Met Pro Ala Met Leu Ile Tyr Ile
177
           115
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184 Val Pro Ala Val Leu Trp Ala Phe Cys Trp Trp Val Leu Val Lys Val
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186 Lys Pro Ser Gln Val Asn Trp Leu Ser Glu Asn Glu Lys Ala Ala Leu
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RAW SEQUENCE LISTING DATE: 07/20/2004 PATENT APPLICATION: US/10/787,267 TIME: 11:34:22

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Output Set: N:\CRF4\07202004\J787267.raw

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	225					230					235					240		
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193	-			-	245		_		<u>-</u> .	250					255			
194	Ser	Ile	Ile	Arq	Ser	Gly	Gly	Val	Asn	Met	Gly	Met	Val	Glu	Val	Gly		
195				260		-	•		265		-			270		-		
	Trp	Leu	Ser	Ser	Val	Pro	Tyr	Leu	Ala	Ala	Thr	Ile	Ala	Met	Ile	Val		
197			275				•	280					285					
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	Met	Len	Pro		Δen	Val	Δla	Glv		Δla	Met	Δla	Len		Asn	Ser		
207			355	11129	11011	· · · ·	1114	360	017	1124			365			202		
	Met	Glv		Len	Glv	Ser	Phe		Glv	Ser	Trn	Phe		Glv	Tyr	Leu		
209		370	1114	200	O-1	001	375		0-1	201		380		0-1	-1-			
	Asn		Thr	Thr	Glv	Ser		Ser	Ala	Ser	Tvr		Phe	Met	Gly	Val		
	385	O				390					395				2	400		
		Leu	Phe	Ala	Ser		Trp	Leu	Thr	Leu		Val	Lvs	Pro	Ala	Asn.		
213					405					410			-1-		415			
	Asn	Gln	Lvs	Len		Tle	Glv	Ala	Ara		Ala							
215			-1.	420			1		425									
	<210)> SI	EO II		. 3						•							
		l> LI																
		2> T								_						-0.14		
		3 > OI			(envi	ronr	nenta	al so	ource	e 🖊	_ <	`	m	2	ev	non		
)> FI			_					\mathcal{F}		> 1 ~	•					
		L> NA			CDS													
		2> L0				1)	. (149	91)								1		
)> SI						•								`		
						t co	cqcac	qqac	q tto	catco	atcc	ggc	ctqta	att d	catca	aacggc	60	
			-													ataagc	120	
																acgcc	180	\
		_	_			_	_	_	_				-			tct	234	'
231					5		٥.	, ,								l Ser		
232			•							1				5				
	atc	acc	caa	age	caq	aca	atic	ada	aaa			taa	tta		ata	ata	282	
	-			_	_						-				Ile		- 	
236	• 41		10	~ - 1				15	-,5		9	1	20	3				
	cca	cct		ctt	att	acc	tac		att	tcc	tat	ato		caa	gtg	aac	330	
															Val		220	
240	110	25	* T E	Leu	110	TIIL	30	-1C	1.1C	UUL	- y -	35	TIPP	y	VUI	11011		1
240		اب ڪ					20					2,7						
																		/

The type of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

RAW SEQUENCE LISTING DATE: 07/20/2004 PATENT APPLICATION: US/10/787,267 TIME: 11:34:22

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	gcc Ala																426
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	Phe			-													
252				75					80					85			
	aaa																522
	Lys	Pne		GIY	Trp	ser	Leu		Ala	Trp	Ala	Val		Ser	Val	Leu	
256			90					95					100				F 7.0
	acc																570
	Thr	_	ьeu	vai	THE	ASII		Tyr	GIII	ьeu	ьeu		ьeu	Arg	Pne	Ala	
260	a+ a	105	aat	++a		200	110	24.0	ata	~~~	+~~	115	ata	200	2 t ~	2 + 4	C10
	ctc																618
	Leu	СТА	Arg	PHE	Arg		Gry	мес	ьец	Arg		vai	Leu	1111	Mec		
	120		+~~	++~	~~~	125		~~~	~~~	~~~	130	~~~		~~~	- + -	135	666
	agc																666
	Ser	ASII	пр	Pne	•	Asp	ьуѕ	GIU	Arg	145	Arg	Ala	ASII	Ala	150	vai	
268	ata	ata	tta	ata.	140	ata	~~~	aaa	a to		200	~~~	aaa	ata		aaa	714
	atc Ile	_			_		_										714
272	116	Mec	rne	155	PLO	116	Ala	GIY	160	ьец	1111	Ата	P10	165	ser	GIA	
	tgg	ata	ato		acc	taa	a a a	taa		ata	cta	tta	cta		asa	aaa	762
	Trp																702
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278	gcg	ctg	tcg	ctg	gtc	gtg	atg	gtg	ctg	tgg	tat	ttc	acc	atc	agc	aac	810
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	cgt																858
283	Arg	Pro	Gln	Glu	Ala	Lys	Arg	Ile	Ser	Gln		Glu	Lys	Asp	Tyr	Leu	
284	200					205					210					215	
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	Ile	Lys	Thr	Leu		Asp	Glu	Gln	Leu		Ile	Lys	Gly	Lys		Val	
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	Arg	Asn	Ala		Leu	Arg	Arg	Val		Gly	Asp	Lys	Ile		Trp	Lys	
292				235					240					245			
	ttc																1002
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	att																1050
	Ile		гÀг	GTA	ren	Tnr		сту	Asn	мет	GIU		val	GIĀ	мес	ьeu	
300		265			-	 -	270	,	a t =			275	a+ -	- + -	- - -	+	1000
	gct																1098
	Ala	тте	ьeu	Pro	ryr		чτλ	ата	тте	rne	_	мес	ьeu	тте	тте		
	280	a+ ~			20-	285	~~~				290	++ -	~+ ~	~~-	a+ ~	295	1140
306	acc	CCC	ECC	gat	cgc	acc	ggc	aag	cgc	ada	gcg	LCC	gcc	gca	ccg	ccg	1146

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/787,267

DATE: 07/20/2004

TIME: 11:34:23

Input Set : A:\GC687-3-D1-seqlist.txt
Output Set: N:\CRF4\07202004\J787267.raw

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